IN THE CLAIMS:

1. (Currently Amended) A pump for dry particulate material, comprising:

a pump chamber through which material flows, said pump chamber defined in part by a gas permeable member comprising a gas permeable wall;

a first pinch valve and a second pinch valve wherein each said pinch valve comprises a member that defines part of a flow path for material through the pump, and wherein said pinch valve members open and close in response to pneumatic pressure applied thereto;

wherein during pump operation gas is drawn out of said chamber to draw material into said chamber under negative pneumatic pressure and pressurized gas flows into said chamber to push material out of said chamber under positive pneumatic pressure; said gas permeable wall having an exterior surface that is exposed to said positive and negative pneumatic pressure during pump operation and an interior surface that is exposed to the material.

said first and second pneumatic pinch valves being operable to control flow of material into and out of said pump chamber.

2-3. Canceled.

4. (Previously Presented) The pump of claim 1 wherein said first and second pinch valves can be separately actuated.

5-7. Canceled.

8. (Previously Presented) The pump of claim 1 comprising a second pump chamber and third and fourth pneumatic pinch valves, wherein material is transferred to a common outlet by alternate flow through said first and second pump chambers.

9. (Previously Presented) The pump of claim 8 wherein said first, second, third and fourth valves can be separately actuated.

10-17. Canceled.

18. (Previously Presented) The pump of claim 1 wherein said pinch valves can be independently actuated open and closed with respect to each other.

19. (Previously Presented) The pump of claim 1 wherein said pinch valves can be independently actuated open and closed with respect to application of negative and positive pressure to said pump chamber.

20. (Previously Presented) The pump of claim 19 wherein said pinch valves can be independently actuated open and closed with respect to each other.

21-26. Canceled.

27. (Currently Amended) A pump for dry particulate material, comprising:

a pump chamber defined in part by a gas permeable member disposed in a pressure chamber; said gas permeable member having an interior passage through which material flows, said gas permeable member comprising a gas permeable wall;

a first pinch valve and a second pinch valve wherein each said pinch valve comprises a member that defines part of a flow path for material through the pump;

wherein during pump operation material flows into said chamber under negative pressure and material flows out of said chamber under positive pressure; said gas permeable wall having an exterior surface that is exposed to said positive and negative pressure and an interior surface exposed to the material;

wherein flow rate of material from the pump is controlled as a function of duration time of said negative pressure.

28. (Currently Amended) A pump for dry particulate material, comprising:

a pump chamber defined in part by a gas permeable member disposed in a pressure chamber; said gas permeable member having an interior passage through which material flows, said gas permeable member comprising a gas permeable wall;

wherein during pump operation material flows into said pump chamber under negative pressure and material flows out of said pump chamber under positive pressure during a pump cycle; said gas permeable wall having an exterior surface that is exposed to said positive and negative pressure and an interior surface exposed to the material;

wherein flow rate of material from the pump is adjustable independent of the pump cycle duration.

29. (Original) The pump of claim 28 comprising a suction pinch valve and a delivery pinch valve that control flow of material in and out of the pump chamber respectively, said pinch valves having open/closed times that are separately controllable from the pump cycle time.

30. (Original) The pump of claim 28 comprising a control circuit that adjusts duration of time that the negative pressure is applied to the pressure chamber to adjust flow rate.

31. (Original) The pump of claim 30 comprising a suction valve and a delivery valve that control flow of material in and out of the pump chamber respectively, said valves having

open/closed times that are separately controllable with respect to the negative pressure duration time.

32. (New) The pump of claim 1 wherein said gas permeable wall permits gas to flow into and out of said pump chamber through which material flows.